The Maxwell Papers



Impact of
Foreign
Ownership
on the
Civil Reserve
Air Fleet



Donald M. Schauber Jr. Lieutenant Colonel, USAF

Air War College Maxwell Paper No. 42

Air University

Stephen R. Lorenz, Lt Gen, Commander

Air War College

Stephen J. Miller, Maj Gen, Commandant Kurt Schake, Col, Dean Lawrence E. Grinter, PhD, Series Editor Alvin M. Lowry Jr., Col, Essay Advisor

Air University Press

Terry L. Hawkins, Interim Director Bessie E. Varner, Deputy Director Jerry L. Gantt, Content Editor Lula Barnes, Copy Editor Mary P. Ferguson, Prepress Production Daniel Armstrong, Cover Design Demorah Hayes, Quality Review

Please send inquiries or comments to
Editor
The Maxwell Papers
Air War College
325 Chennault Circle, Bldg. 1401
Maxwell AFB, AL 36112-6006
Tel: (334) 953-7074
Fax: (334) 953-1988

http://www.au.af.mil/au/awc/awcgate/awc-mxwl.htm

AIR UNIVERSITY AIR WAR COLLEGE



Impact of Foreign Ownership on the Civil Reserve Air Fleet

Donald M. Schauber Jr. Lieutenant Colonel, USAF

Air War College Maxwell Paper No. 42

Air University Press Maxwell Air Force Base, Alabama

20080610 399

April 2008

This Maxwell Paper and others in the series are available electronically at the Air University Research Web site http://research.maxwell.af.mil and the AU Press Web site http://aupress.maxwell.af.mil.

Disclaimer

Opinions, conclusions, and recommendations expressed or implied within are solely those of the authors and do not necessarily represent the views of Air University, the United States Air Force, the Department of Defense, or any other US government agency. Cleared for public release: distribution unlimited.

Foreword

The United States Air Force vision of "Global Vigilance, Reach, and Power" is undoubtedly one of the most powerful statements in the world today. What makes these five words so powerful? Many would argue their strength resonates in the underlying distinctive capability of "Rapid Global Mobility," the true means to fulfill America's global engagement strategy. Without the ability to rapidly deploy and sustain our forces, the foundation of our global engagement strategy is jeopardized. As such, a robust strategic airlift force capable of global power projection is a critical prerequisite. Besides our military airlift assets, the US commercial air carriers provide a unique and critical enabler that helps us meet our mobility requirements in the form of the Civil Reserve Air Fleet (CRAF).

Since 1951, the CRAF has augmented military airlift by providing passenger, cargo, and aeromedical airlift capabilities during times of national emergency. For the past 57 years, the CRAF has not only proven its capability, but currently is responsible for approximately one-third of the Department of Defense (DOD) wartime airlift requirements. As the United States continues its "global engagement" strategy and the world becomes more interdependent, the DOD and US commercial air carriers are each beginning to face dramatic changes. While the DOD is currently strained from over 17 years of uninterrupted engagement, shrinking defense budgets, decreasing overseas infrastructure, and shortfalls in manpower and aircraft, the US commercial air carriers continue to struggle financially, never fully recovering from 9/11 or the recent skyrocketing fuel prices. The financial insecurity of the US air carriers coupled with a healthy global market has generated a push to change the current laws, allowing increased investment opportunities for foreign companies/investors into US commercial air carriers.

Colonel Schauber contends that changes allowing increased foreign ownership or control opportunities would threaten our national security by jeopardizing the DOD's accessibility to CRAF assets. Although the CRAF has formally been utilized only twice, its importance and our reliance on it cannot be overstated. This research is very timely given

that the US military has been running on a wartime surge since 9/11, many of our current military airlift platforms are struggling with poor mission capability rates, and these resources continue to be utilized in multinational and humanitarian operations. These recent proposals to relax foreign ownership of US airlines are a serious concern, and the DOD, Department of Transportation, and civilian air carriers must work together to find a balance between economic stability and national security.

As with all Maxwell Papers, this study is provided in the spirit of academic freedom, open debate, and serious consideration of the issues. We encourage your responses.

STEPHEN J. MILLER Major General, USAF

Commandant, Air War College

About the Author

Lt Col Donald "Moose" Schauber Jr., USAF, is a graduate of the Air War College, Class of 2008. Previously, he served as the deputy group commander of Squadron Officer School and commander of the 35th Student Squadron, Squadron Officer College, all at Maxwell AFB, Alabama. He also completed tours at Offutt AFB, Nebraska; Dyess AFB, Texas; Ellsworth AFB, South Dakota; and Minot AFB, North Dakota.

Colonel Schauber entered the Air Force from Officer Training School in 1987 following graduation from Montana State University. He is a command navigator with more than 2,400 hours in the B-1B, B-52G, B-52H, T-43, and T-37. He was a distinguished graduate of initial qualification training and was qualified as an instructor navigator/weapons systems officer/flight examiner in both the B1-B and B-52. He was selected as a joint specialty officer following his assignment at US Strategic Command (USSTRATCOM), where he culminated his tour as executive officer for the USSTRATCOM commander. He holds the Master of Arts in National Security and Strategic Studies degree from the Naval War College, Newport, Rhode Island, and is a graduate of the Naval Command and Staff College, Newport, Rhode Island.

Following graduation from Air War College, Colonel Schauber was selected as the air attaché to the US Embassy, Lima, Peru.

Abstract

Since the beginning of manned flight, the movement of personnel and equipment by air has been critical to US national security. This realization led to the establishment of the Civil Reserve Air Fleet (CRAF) in 1951 to augment the military airlift fleet in times of national emergency. In the 56 years following its inception, the CRAF has proven itself numerous times as a critical enabler to US military strategy. Recent changes within the military and trends toward a globalized economy have placed the Department of Defense and US airlines on diverging paths. The purpose of this paper is to examine these changes and their possible impact on US national security. Following a basic overview of the CRAF and its criticality, the paper examines the conflict of interest between the national economy and national security regarding the push to liberalize airline ownership and control. The paper concludes by examining possible options and recommendations that help address these concerns to ensure that the CRAF program remains a viable and integral part of the US military capability.

Impact of Foreign Ownership on the Civil Reserve Air Fleet

We have learned and must not forget that, from now on, air transport is an essential of airpower, in fact, of all national power.

-Gen Hap Arnold

Introduction

The 2004 National Military Strategy is based on continued US engagement and leadership abroad and calls for "rapidly deployable, employable, and sustainable forces that can defeat a wide range of adversaries." Currently, two sources of strategic airlift—the Civil Reserve Air Fleet (CRAF) and the organic (military) fleet—are critical enablers in meeting this strategy. The CRAF was developed to supplement organic airlift with civil passenger, cargo, and aeromedical capabilities during times of national emergency. The latest planning factors state that the Department of Defense (DOD) relies on the CRAF to handle approximately one-third of its wartime airlift requirements. Most recently, the long-range passenger segment of the CRAF was activated for Operation Iraqi Freedom (OIF), reinforcing DOD reliance on the CRAF and the impact of the CRAF on national security.

As the United States remains the dominant nation in a world that continues to "globalize," many dramatic changes are occurring within the DOD and the US commercial air carrier industry. The DOD continues to deal with shrinking budgets, downsizing, decreasing overseas infrastructure. and an increased ops tempo for manpower and equipment. The commercial air carriers face economic uncertainty as they struggle to recover from the aftermath of 9/11 and skyrocketing fuel prices. These concerns, coupled with a national and military strategy based on global engagement and an increasingly interdependent global community, continue to make the DOD increasingly dependent on CRAF assets. At the same time, globalization and international financial interdependence have sparked a push for US air carriers to seek new partnerships, markets, and sources of financial capital from foreign investors. This combination of globalization, economic pressure, and military change could easily disrupt the delicate balance that currently exists between the DOD and CRAF participants.

Recently the Department of Transportation (DOT), with the backing of the president and members of the European Union (EU), proposed new legislation to ease restrictions that limit foreign investors' ability to obtain and exercise control over US commercial air carriers. While there are clearly foreseeable economic benefits in allowing increased foreign investment, the issue remains that many of those who advocate relaxing foreign ownership restrictions are doing so from a strictly economic standpoint. This short-sightedness is dangerous and could place the nation's economic stability at odds with its military security. This study contends that changes to allow increased foreign ownership and/or control of US commercial air carriers would threaten US national security strategy by impacting the military's accessibility to CRAF assets.

This study begins with a brief background of the CRAF program, discussing current laws and requirements for the CRAF, then transitions to the issues and concerns of foreign ownership of US air carriers. It concludes by examining possible recommendations and options that provide the DOD with continued CRAF support while allowing increased foreign ownership and control opportunities.

The scope of this study is to present a brief overview of the CRAF foreign ownership issue in hopes of providing a single-source primer to help others better understand what the author considers the most critical threat to US strategic mobility and the well-being of the CRAF program since its inception.

CRAF Overview

The United States' reliance on civilian airlift can be traced back to World War II when commercial carriers voluntarily transported soldiers into the European theatre. Recognizing our strategic need and dependence on supplemental airlift, President Truman issued an executive order in 1951 that established the CRAF, specifically designed to augment military airlift during times of national emergency. Under the CRAF program, US air carriers voluntarily enter into agreements that contractually commit them to supply

aircraft in support of DOD airlift requirements in times of national emergency in return for peacetime business.³

Since its beginning, the program has maintained 100 percent enrollment, with 34 carriers and 1,364 aircraft enrolled as of May 2007. Enrollment in the program entitles the air carriers a share of the DOD's yearly passenger and cargo airlift contracts. The guaranteed contracts available for 2007 totaled over \$379 million, with Air Mobility Command (AMC) estimating the possibility of an additional \$2.1 billion in "non-guaranteed" contracts that are necessary to fulfill unscheduled transportation requirements. Along with enrollment, the air carrier is placed under the oversight of AMC, which performs semiannual reviews and inspections of a carrier's safety, maintenance, financial, and contractual performance.

The CRAF is divided into three segments depending on carriers' capabilities and assets: National (subdivided into domestic and Alaskan), International (subdivided into short-range and long-range), and Aeromedical Evacuation as illustrated below. The National section was specifically designed to provide the DOD with airlift primarily within the United States and more specifically to Alaska. The International section was designed to augment the C-5 and C-17 fleet in providing transoceanic capabilities (long-range) and "near offshore" capabilities. The Aeromedical Evacuation section consists of Boeing 767 aircraft that are converted to air ambulances to transfer wounded.⁶

Cumulative number of CRAF aircraft by segment (May 2007)

	Segment	No.
NATIONAL	Domestic Alaskan	37
INTERNATIONAL	Short-Range	283
AEROMEDICAL EVACUATION	Long-Range	990
. LEIGHTE EVICONITOR	TOTAL	1,364

Adapted from DOT, Transportation Emergency Management, 1, http://www.dot.gov/ost/oet/craf/index.html.

Once a carrier is registered into one of these segments, it is subject to activation in one of three progressive and tai-

lored stages depending on the level of crisis. Stage I (Committed Expansion) is designed for small, regional conflicts; Stage II (Defense Airlift Emergency) is tailored for a major regional conflict; and Stage III (National Emergency) is utilized during a declaration of national emergency. Following approval from the secretary of defense, activation for all three stages of the CRAF falls under the authority of the commander, US Transportation Command (USTRANSCOM), where the activation is tailored to the specific requirements as requested by AMC. Appendix A provides additional details on CRAF carriers, aircraft types, and numbers.

Criticality of CRAF

Although formal activation of the CRAF has only occurred twice, it has been an integral force multiplier in every major US conflict since its inception.⁸ Besides WWII, mentioned above, the CRAF voluntarily moved 67 percent of all DOD passengers and 56 percent of DOD cargo requirements during the Korean War.⁹ The CRAF again voluntarily stepped in during the Vietnam War and transported over 11 million soldiers and over one million tons of cargo.¹⁰

It was not until the early 1990s that the CRAF was formally activated during Operations Desert Shield/Desert Storm (ODS), where both Stage I and Stage II were activated. To highlight the capabilities of the CRAF, during ODS the activated CRAF aircraft accounted for 67 percent of the passengers and 25 percent of the cargo during the deployment phase and 85 percent of the passengers and 42 percent of the cargo for the redeployment phase. 11 Viewed in a historic perspective, the airlift in ODS was equivalent to repeating the Berlin airlift, a 56-week operation, every five weeks. 12 The most recent activation occurred for OIF from 8 February to 18 June 2003. A select group of 51 Stage I aircraft was activated and flew 1,625 missions, accounting for the transportation of 254,143 passengers, or 78 percent of the deploying troops and 85 percent of the redeploying troops during this period. 13 Finally, recent data indicates 70 percent of sustainment flights into US Central Command's (USCENTCOM) area of responsibility (AOR) is provided by commercial carriers.¹⁴

In March 2001, USTRANSCOM released the results of its comprehensive study detailing the wartime airlift require-

ments, "Mobility Requirements Study 2005" (MRS-05). Per MRS-05, the current wartime airlift requirement is 54.5 million ton-miles per day (MTM/D—the ability to move one ton of cargo one million miles in a day or one million tons of cargo one mile in a day). Of this 54.5 MTM/D, the CRAF is responsible for 20.5 MTM/D or approximately 38 percent of the total DOD requirement. With MRS-05 released early in 2001, it is obvious the planners did not foresee the attacks of 9/11 and the ongoing operations in both Afghanistan and Iraq, so a new airlift requirements study, referred to as the Mobility Capabilities Study (MCS), was ordered to account for the changes required to meet the expanding national security strategy. 15

Initially briefed to Congress early in 2006, the MCS fell under extensive criticism for its methodology. The primary issue was that instead of measuring airlift requirements by MTM/D, it looked at current and projected organic aircraft capabilities and determined that US capabilities were sufficient, assuming differing levels of "risk." Given the tempo of overseas operations, the increasing age of aircraft, and changes to US engagement strategy, many planners thought the gap between MRS-05 and current requirements would be at least 10 MTM/D, with some speculation upwards of 22 MTM/D. Due to concerns and shortfalls of the study documented by the Government Accountability Office (GAO), many have called for an independent followon study to clarify/resolve DOD airlift requirements. 18

From the examples above, it should be intuitively obvious. despite the difficulty of forecasting future mobility requirements, that the US military is very dependent on civilian airlift during times of conflict. With an approximate cost of \$379 million to the taxpayers in 2007, the CRAF program offers an avenue for the military to obtain a large portion of critical lift capability at a minimal cost. This avenue becomes increasingly important as the military continues to work with shrinking budgets and decreased overseas bases while transforming to an expeditionary force where engagements throughout the globe will undoubtedly continue to rise along with the need for strategic lift. A 1999 congressional report estimated it would cost over \$50 billion to procure an organic fleet equivalent to the capabilities provided by the CRAF fleet plus approximately \$1-3 billion annually to operate it. 19 In other words, it costs the military approximately \$152 to move one ton-mile per day with its organic fleet while the CRAF cost is less than $\$12.^{20}$ These numbers are stark reminders of the US reliance on the CRAF and its vital importance to supplement military airlift requirements, a vital element of national security.

Specific CRAF Requirements and Restrictions

Due to the importance and monetary value of the CRAF program, many eligibility requirements and prerequisites must be met to participate. For this study, only a few specific requirements related to the foreign ownership issue are discussed. First, a carrier must commit at least 30 percent of its CRAF-capable passenger fleet and 15 percent of its cargo fleet. The air carrier must also maintain and commit a minimum of four complete crews for each CRAF-dedicated aircraft.²¹ Current requirements include that each crew member must be a US citizen and able to obtain a security clearance to the minimum level of Secret.²² Finally, and most importantly, the air carrier must be US registered.²³

Defining a "US registered" air carrier requires looking back to 1926 when Congress first enacted citizenship requirements with the introduction of the Air Commerce Act. The Air Commerce Act required that for an air carrier to operate within the United States, US citizens must own the carrier. Also, at least 51 percent of the air carrier's voting stock must be owned or controlled by US citizens to be registered in the United States. In 1938, Congress raised that percentage from 51 percent to 75 percent to mirror the Shipping Act of 1916 that required 75 percent US control and ownership, precluding what Congress believed an "inadequate cushion" against foreign ownership and control.²⁴ Current law also specifies for air carriers incorporated in the United States, the company president and at least two-thirds of the board of directors must be US citizens. Finally, it is critical to understand that the DOT defines the or language in "owned or controlled" as meaning and. 25 Thus, to meet the US citizenship requirements, 75 percent of the voting interest must be owned and controlled by US citizens.

Foreign Ownership and the CRAF

According to a 1992 GAO report, the United States has limited the ownership and control of US airline companies

to only US citizens for four reasons: (1) the protection of the US airline industry, (2) the regulation of international air service, (3) concern about foreign access to US airspace, and (4) DOD reliance on civilian carriers' supplemental airlift.²⁶ In the early 1990s there was a renewed push by the DOT to ease foreign ownership investment restrictions. The DOT proposed legislation raising the foreign ownership restriction from 25 percent ownership to 49 percent.²⁷ This initial proposal was primarily focused on easing the financial losses suffered by US carriers during this time frame. Congress rejected these proposals, and the issue remained fairly dormant until 2003.

In 2003 the DOT, with the backing of the Bush administration, once again submitted formal proposals that would amend legislation to relax the restrictions on foreignowned voting stock of US airlines from 25 to 49 percent.²⁸ Recently, the EU had been applying pressure to the DOT, insisting that the United States must increase the percentage of foreign ownership of US airlines to match EU ownership requirements of 49 percent.²⁹ Ongoing negotiations concerning the "open skies" agreements are designed to increase air transportation between the United States and the 27 EU members by replacing many of the restrictive bilateral arrangements, most made during WWII.³⁰ Although foreign ownership is not currently part of "open skies," the EU stated that "ownership and control of US airlines would be an essential element for the deal to be completed."31 The DOT's proposal was rejected by both houses of Congress.

In an attempt to circumvent Congress, the DOT issued a notice of proposed rulemaking (NPRM) on 7 November 2005 that would overturn the current policy prohibiting foreign carriers from gaining "actual control" of US airlines. According to the Air Line Pilots Association (ALPA), although the NPRM would leave the 25 percent limit unchanged, the language would increase "control" opportunities for foreign investors to make economic, fleet planning, route structure, pricing, and marketing decisions. While the NPRM would keep safety and security under US citizen "control," it is intuitively obvious that in such an industry it would be impossible to isolate safety and security from the financial and managerial decisions. Again, pressure from the EU seems to be the driving factor behind the proposal.

Members of the US House of Representatives quickly responded to the proposal in a letter of protest stating, "We believe that the Department has overstepped its authority in this proposal with its revised interpretation of 'actual control' as it relates to the citizenship of a US airline, and we urge the Department to withdraw the NPRM." The Senate also sent a letter of objection that stated, "Any changes to current law on ownership and control of US airlines would require extensive review and public debate . . . to consider the impacts any proposed changes to current law would have on US jobs, our national defense, homeland security. and the financial stability of the US airline industry."34 With congressional protests failing to quell the DOT proposal. both houses of Congress introduced legislation (H.R. 4542 and S.R. 2135) that banned the DOT from finalizing any changes without congressional review.

In an attempt to address congressional concerns, the DOT issued a "supplemental" NPRM in May 2006. Again, both houses of Congress overwhelmingly passed amendments prohibiting any funds to be utilized to implement any changes to foreign control rules and sent a letter to the secretary of transportation calling for the immediate termination of the DOT's current pursuit to change US airline foreign control rules.³⁵ Despite the DOT's stubbornness toward the foreign ownership issue, pressure from Congress has not only postponed the DOT's push for changes, but maybe more importantly, highlighted to the DOT the seriousness and potential effect on the airline industry and more importantly, national security. Capt Duane Woerth, ALPA representative, stated that the strong support by both houses of Congress was an "undeniable signal that Congress is united in opposing this radical change because of its implications for our country's airline industry, national defense, and jobs."36

National Security Concerns with Foreign Ownership

The CRAF issue presents a definite conflict of interest between the national economy and national security. Although it may be economically beneficial to allow foreign ownership and provide US airlines more access to global markets, the fact remains that the US military has become dependent on US airlines for a critical portion of its strategic airlift capability in times of national emergency.

A 1993 GAO report identified five key issues affected by liberalizing airline ownership and control: (1) domestic competition, (2) national security, (3) employment, (4) safety, and (5) international competition.³⁷ The DOD must focus on national security in regard to the CRAF. Within national security are five subissues of primary concern which fall within the scope of this study: (1) political and national interests, (2) legal leverage, (3) meeting CRAF timelines, (4) crew security clearance requirements, and (5) safety.

Subissue 1: Political and National Interests

The first and most important underlying subissue is the alignment or, more appropriately, the mismatch between political and national security interests. When the CRAF is required for activation, the United States will be engaged in a conflict with a foreign adversary during a time of global instability. Given these conditions, how could the DOD not have reservations concerning CRAF participation if foreign ownership were allowed? The relationships between foreign airlines and their home governments are often fundamentally different from the relationship between US airlines and the US government.

Unlike the United States, many foreign countries have a very limited number of airlines operating within their borders, with the majority having only one. Being a single carrier within a foreign country makes that carrier very susceptible to political pressures from the government.³⁸ So the primary concern is if the United States were to enter into an "unpopular" conflict, could a foreign-owned carrier be counted on to participate if it or its respective government disagreed with US actions? This concern is illustrated in the following account of a seminar discussion at the Fifth Worldwide Air Transport Conference, with the topic of OIF as a backdrop:

[T]he seminar discussion said [the effect of] unrestricted foreign ownership of a US airline would be minimal on the Defense Dept.'s Civil Reserve Air Fleet program. An airline with a majority of investment from overseas would most likely be operated as a US subsidiary, he said, subject to the same responsibilities as any other flagged

carrier. Concerns could be allayed by applying existing regulations such as those related to licensing.

Discussions on this issue prompted the seminar chairman . . . to question whether Air France, if it owned a US subsidiary, would permit the subsidiary to operate supply missions to the Middle East. The query caused a wave of laughter through the hall packed with $600~participants.^{39}$

Subissue 2: Legal Leverage

Many argue, and this author agrees, there are adequate laws and regulations in place to ensure current (US) CRAF participants meet contractual obligations during activation. such as the Exon-Florio provision that blocks financial transactions and investments of those refusing to participate. The US government has strong leverage (legal, economic, and political) over US-owned carriers to compel them to carry out their CRAF commitments. If a US carrier refuses to fulfill its obligation during activation, the DOT has the authority to regulate commercial air transportation to ensure that the security needs of the country receive priority. The first probable action would be to revoke the carrier's operating certificate, essentially shutting it down. Although the carrier could appeal, it is unlikely the courts would side with the carrier during a time of national emergency. In an extreme case, the DOD could seize and utilize its resources under the powers of the Defense Production Act. Although able to seize aircraft only, the DOD would likely utilize its National Guard and reserve pilots to fly the seized aircraft. Besides seizing assets under the Defense Production Act, the government could also sue corporate officers and members of the board of directors individually for their noncompliance with CRAF obligations. As a final possibility, the US government could invoke the "Trading with the Enemies Act" that would allow the confiscation of all corporate assets.⁴⁰

The same is not true of the US government's influence or leverage over a foreign carrier enrolled in the CRAF. Currently, the only leverage the United States would have over a carrier is the suspension of its operating permit. Suspending a foreign carrier's operating permit would mean it cannot operate within the United States, but it would still be able to operate in other countries. Besides limited US government leverage, foreign carriers could legally invoke the well-estab-

lished "sovereign compulsion" defense to refuse their CRAF obligations due to their government's "compulsion." Another concern with foreign ownership is the possibility that a foreign carrier refuses to participate due to fear of terrorist reprisals due to its partnership with the United States in providing assets to the CRAF. This is a result of the ongoing global war on terror and the multitude of countries and organizations with anti-American sentiments. Adding credibility to this concern are the photos below, which illustrate the damage to a DHL Airbus A300 that was struck by an SA-7 surface-to-air missile six miles from the Baghdad International Airport in November 2003. With the cost of these limited assets so high, this argument cannot be ignored.





SA-7 damage to DHL Airbus A300, 22 November 2007 (Reproduced from David D. Banholzer, "The Civil Reserve Air Fleet: A Vulnerable National Asset," Naval War College, Newport, RI, 2006, 6.)

Finally, a worst-case scenario—a foreign carrier, following activation, withdraws from the CRAF altogether and "reflags" its aircraft to its country of origin. 44 The best explanation of the legal concerns of US government leverage over foreign carriers was expressed by an aviation lawyer who stated that "in a game of poker, the US government has all the cards when playing with a US carrier. The game is entirely different when there is a foreign airline aligned with its government." 45 Beyond mere speculation, our military has firsthand experience with foreign carriers unwilling to participate or to fulfill their commitments. In both ODS and OIF, there were instances where committed foreign sea and air carriers either refused or caused critical delays in the delivery of cargo into the AOR. A stark example during

ODS followed the initial Stage I activation when the combination of CRAF assets and organic capability was insufficient to meet requirements. The call went out from the Mobility Airlift Command (MAC) seeking additional air carriers. Remember that ODS was a coalition force, backed by the United Nations. Early volunteers included Kuwait Airways, JAL (Japanese Airlines), and KAL (Korean Airlines). Repeated attempts and requests for additional foreign carrier assistance, especially from the European allies, were unsuccessful. Of special note, although JAL agreed to provide aircraft, its aircrews refused to fly. In total, of the 5,061 sorties flown commercially during ODS, only 185 were flown by foreign carriers.

Subissue 3: Meeting CRAF Timelines

A third concern is the ability of foreign carriers to meet the CRAF activation timelines. Currently all CRAF-committed aircraft, upon notification of a call-up, are required to have their aircraft stateside and ready for a CRAF mission within 24 to 48 hours depending on which stage is being activated. These strict timelines are primarily for two reasons. First, if the CRAF is activated, the US military is in dire need of airlift to get either troops or equipment when and where needed. Second, these timelines are critical to the strategy and capability factors utilized by our military planners to make critical assumptions. With foreign carriers, their geographical locations could add hours to this critically time-sensitive requirement. 49

Subissue 4: Crew Security Clearance Requirements

The fourth issue concerns foreign-owned airlines meeting crew and security requirements mandated by the CRAF. Airlines participating in the CRAF agree to supply a minimum of four fully qualified crew members per CRAF-committed aircraft. Each of these crew members must be able to obtain a US Secret security clearance. That requirement is necessary primarily because crews need access to Secret aircraft identification security codes, devices capable of encoding and decoding messages, and secure communication equipment. Since current restrictions do not allow foreign

carriers to meet these requirements, the usefulness of foreign CRAF participants would be very limited without major changes to security procedures.⁵⁰

Subissue 5: Safety

Many safety concerns are raised regarding foreign ownership within the CRAF. Besides regulatory oversight. a primary safety concern mentioned in a GAO report is that transferring large numbers of foreign aircraft to US registry would overwhelm the already "thinly stretched" Federal Aviation Administration (FAA) safety inspection workforce, thus endangering the overall health of the nation's air carrier system.⁵¹ This burden would also impact the DOD survey teams required to perform comprehensive, on-site inspections of every carrier's aircraft, training facilities, maintenance procedures, quality control measures, and financial status before a carrier is approved for use in the CRAF.⁵² Finally, and most disturbing, while a Brattle Group foreign ownership study admits the safety issue would be a challenge, FAA officials stated that decisions on this issue should be based primarily on economic policy, not safety.⁵³

Foreign Ownership Options/Recommendations

No one can deny that the world is experiencing a shift to a global economy where almost every nation and business is interdependent with one another. The US military has also seen a shift from a containment strategy to one of global engagement. Unfortunately, as the military strategy of global engagement unfolds, the military continues to face shrinking budgets and a fleet of organic aircraft insufficient in number to meet these requirements. With the ever-changing nature of war, evolving requirements, and unknown threats, planning and forecasting future airlift requirements are difficult, to say the least. This issue is too important, too complicated, and lacks sufficient study for an educated, well-informed risk assessment to be made. Opening US air carriers to foreign investment is easy; guaranteeing that they will fulfill their CRAF obligation is the hard issue. Unless Congress stands firm on a "US only" CRAF program, the challenge for the DOD will be to develop, convey, and execute workable solutions that minimize the risks to national security while improving its relationship with both the DOT and civilian air carriers. This author believes there are options that, if executed properly, may permit increased foreign ownership and/or investment opportunities without jeopardizing the fundamental principal of the CRAF or US national security.

Recommendation/Option 1: Conduct Formal Survey and Open Dialogue

As mentioned throughout this paper, foreign ownership within the CRAF is a very complicated issue with numerous players on a global scale. The first recommendation would be to formally survey foreign and domestic carriers to assess their willingness to participate in the CRAF, relay their concerns, and evaluate compatibility. A formal survey would establish a baseline and a better understanding of the issues for the DOD, DOT, and both domestic and foreign carriers. Such a survey would help define, identify, and clarify the full range of CRAF-specific contractual and activation concerns while examining both national and international laws and policies that may impact CRAF participation. It would help the DOD, DOT, and other appropriate agencies formulate specific guidelines and establish laws to ensure that if foreign investment in the CRAF program were allowed, the United States could continue to meet the requirements for air mobility without jeopardizing its national security.⁵⁴

Recommendation/Option 2: Modify Current Policies/Laws

As discussed earlier, the United States faces a double standard in terms of legal leverage over US versus foreign carriers. Understandably, if the DOD is to be comfortable with foreign carriers in the CRAF program, the United States must have the same legal and regulatory authority over a foreign carrier as it does over a US carrier. Legal leverage with meaningful political or financial consequences is mandatory. One possible solution is US incorporation. Although not totally risk free, incorporation would provide better protection to the CRAF program by giving the US government similar legal leverage over foreign-owned carriers and US carriers by nullifying the

"sovereign compulsion" defense.⁵⁵ This is the key to CRAF and foreign involvement. Unless the US government can negate the concept that foreign ownership equates to sovereignty and circumvent the regulatory authority of foreign governments, there are no options that would guarantee reliance on foreign-owned carriers during CRAF activation.

Recommendation/Option 3: Make CRAF Participation Mandatory for Foreign Investors

No one disputes that CRAF participation places numerous financial burdens and risks upon carriers. So why should US carriers bear this burden alone? This proposal would make it mandatory for foreign carriers (or US carriers accepting foreign investment) to participate in the CRAF. Mandatory participation, backed by new and improved laws/policies, would help ensure that foreign investors truly understand the consequences of the CRAF and are willing to accept the associated risks inherent to the program. On the other side, a close look at how domestic carriers might react is warranted since this change may have unintended consequences. Because CRAF participation is very risky, some domestic carriers may opt not to renew their CRAF contracts in order gain a competitive advantage by avoiding possible CRAF activation, the burden that their new competitors must maintain. ⁵⁶

Recommendation/Option 4: Compromise on Foreign Ownership Restrictions

According to a transportation group study, raising the investment opportunity to 40 percent would show good faith while still allowing US majority control.⁵⁷ Besides good faith, this could also provide critical income to economically struggling US airlines, which lost an estimated \$42 billion in the first five years of this century alone.⁵⁸ However, raising the investment opportunity also increases the risk factor for the investor while providing no increase of authority.⁵⁹

Recommendation/Option 5: Require the DOT to Adopt National Security Criteria

This option goes right to the heart of the argument that DOD has been somewhat remiss in its involvement concern-

ing the foreign ownership issue within the CRAF. The concept behind the national security criteria is that the DOD would have a consultative role in either denying or revoking an airline's authority due to its inputs. 60 A recent GAO report stated that the DOD must become more involved in shaping US foreign investment policy. Of course there are differing opinions between the DOD and DOT on interpretation of policy and coordination procedures regarding foreign ownership and potential CRAF implications. In a perfect world, the DOD should be notified by the DOT whenever a review arises concerning a CRAF issue/asset. According to the GAO report, the DOT does not currently solicit DOD inputs on foreign ownership issues. This is understandable since there is currently no provision that allows the DOT to deny or revoke an airline's authorization due to national security.61 Although the DOD is a member of the Committee on Foreign Investment in the United States (CFIUS), which can make recommendations to the president on foreign investments, it still lacks that national security consultation piece.

Recommendation/Option 6: Adopt the Voluntary Intermodal Sealift Agreement

The Voluntary Intermodal Sealift Agreement (VISA) was established in 1997 and was benchmarked from the CRAF program. Basically, VISA is a seagoing CRAF (cargo only) that ensures the DOD has US-flagged vessels during times of national emergency.⁶² While there are similarities, they are superficial. Besides the huge difference in delivery time (three to four weeks vs. two days), activation is different. With the CRAF, the entire asset (aircraft) is activated and under the control of the DOD. On the other hand, VISA is capacity-controlled—the carrier can combine military cargo with commercial cargo. Another reason the United States utilizes foreign-flagged ships that meet US "citizenship" requirements is that, unlike the thousands of US aircraft, the majority of civilian-owned ships are foreign flagged. 63 Other differences that have considerable impact involve the basic logistics of sealift versus airlift. Sealift can function somewhat autonomously, avoiding many of the political barriers such as airport restrictions, international overflight clearances, crew security, and communication requirements.

The VISA concept was first utilized during ODS. While considered a success, USTRANSCOM's sealift experience during this period illustrates the risks associated with foreign carriers "balking" during wartime. During the conflict, 13 foreign-flagged vessels carrying critical wartime cargo either delayed or refused to deliver their cargo. ⁶⁴ Finally, there has been some recent turbulence between foreign carriers and Congress concerning contractual terms and control issues, many similar to those currently facing the CRAF. ⁶⁵

Recommendation/Option 7: Maintain the Status Quo

Many believe the laws enacted almost 70 years ago are obsolete in today's global economy, and to a certain degree our airlines are already operating with foreign partners. With this perception, many foreign and domestic airlines are actively campaigning for increased liberalization of foreign investment restrictions while at the same time exploring ways to work around current laws. An October 2007 article in the Salt Lake Tribune reported that foreign and domestic airlines are beginning to form alliances in a sort of "end-run" around foreign-ownership laws. Most recently, Delta and Air France-KLM formed an alliance that will allow them to share an estimated \$8 billion in revenues in trans-Atlantic flights. Airline analyst Michael Derchin stated this is as close to a merger as you can get, with the airlines now able to sit down and legally collude pricing, scheduling, and marketing.66 Although the US airlines are not legally owned or controlled by foreign companies, these alliances, mergers, agreements, and code sharing are a clear indicator of future trends in commercial air transportation.

While maintaining the status quo is an option, the United States' position as the global hegemon puts it in a unique situation where national security considerations must come before economics. As civilian carriers continue to press for liberalization, they fail to realize that they are jeopardizing the very blanket of security that they rely on for their survival.

Recommendation/Option 8: Reduce CRAF Dependency

In a worst–case scenario where increased foreign ownership restrictions are lifted by the DOT and Congress does not block this move, how can the US military mitigate the risk of insufficient airlift capabilities, or more importantly, how does it wean itself from dependency on the CRAF? A recent congressional report on strategic airlift provides multiple options worth mentioning.

First, modernize the aging organic mobility assets and/or purchase additional C-17s.⁶⁷ Of course, as mentioned above. the cost of procuring and operating the required number of aircraft to fill the CRAF gap, in today's budget, would be cost prohibitive. A second option is to seek new alternatives to commercial and organic aircraft. An area of study that has shown great promise for moving large payloads over long distances is the hybrid airship.68 Recent developments and advances in technology make hybrid airships a promising alternative, with payloads ranging from 500 tons and speeds exceeding 100 miles per hour. Not bound by expensive or specialized infrastructure needed for aircraft, airships could deliver large payloads closer to the fight and with greater flexibility, to include landing on water in support of the Navy. 69 A third, and arguably the most commonsense, option is to reduce airlift requirements.⁷⁰ All services must continue a concerted effort to explore options that reduce their airlift mobility footprint. This can be accomplished with either increased prepositioning or by reducing weight, size, or equipment requirements. It is imperative that the military continue to study and focus on speed, agility, and flexibility. Examining ways to improve in these areas should help lead to reductions in airlift deployment requirements. A final option offered by the congressional report is for the military to operate solely within its organic airlift capability.71 The report debates whether the current requirements in MRS-05 are realistic, as it is based on a worstcase scenario. This option will require a huge "assumed risk" factor and a monumental effort from military planners to reevaluate and replan mobility requirements.

Conclusion

The issue of foreign ownership and its impact on the CRAF should be a major concern for the DOD. The multitude of reasons why this problem is not going away includes slow recapitalization of aircraft, an aging mobility fleet, decreasing budgets, changing force structures, expanding

missions, and the global security and economic environments, to name just a few. The United States has been in conflict for the last 17 years, with estimates of at least 10 more years of sustained involvement in the USCENTCOM AOR alone.⁷² At best, the DOD is in a reactive mode, as major decisions on foreign ownership have already been set in motion and one GAO report goes so far as to say our senior military leadership has "no official position" on the subject.⁷³ Widespread acceptance that globalization is unavoidable, combined with the military's increasing appetite for and reliance on civilian airlift, means that the DOD must find ways to manage and mitigate the inherent risks associated with foreign ownership within the CRAF. These concerns are warranted, but no problem is insurmountable with creative thinking, additional research, and proactive consultation among principles. The United States can ill afford to have its national security jeopardized by adopting policies based on untested, economically based initiatives. Finally, the primary key to successful resolution of the CRAF issue is a stronger working relationship between the DOT and DOD. The DOT and DOD must work together to resolve and balance the US military and economic healththe nation's future depends on it.

Notes

- 1. Gen Richard B. Meyers, USAF, ed., *The National Military Strategy of the United States of America* (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 2004), 23.
- 2. Christopher Bolkcom, ed., Strategic Airlift Modernization: Background, Issues and Options, Congressional Research Service (CRS) Report to Congress (Washington, DC: CRS, 2005), 3.
- 3. David Graham, Sustaining the Civil Reserve Air Fleet Program (Alexandria, VA: Institute for Defense Analyses, 2003), 1.
- 4. Air Mobility Command (AMC), U.S. Air Force Fact Sheet: Civil Reserve Air Fleet, 1, http://www.amc.af.mil/library/factsheets.
- 5. Christopher Bolkcom, ed., Civil Reserve Air Fleet, CRS Report to Congress (Washington, DC: CRS, 2006), crs-1.
 - 6. Ibid.
 - 7. Graham, Sustaining the Civil Reserve Air Fleet Program, 3.
- 8. Michael Spehar and Kevin Spradling, "White Paper on Increased Foreign Ownership of U.S. Airlines" (Scott AFB, IL: AMC, 2007), 1.
- 9. Ronald N. Priddy, A History of the Civil Reserve Air Fleet in Operations Desert Shield, Desert Storm, and Desert Sortie (Washington, DC: DOD

Policy Board on Federal Aviation, Volpe National Transportation Systems Center, 1994), 13.

- 10. Congressional Budget Office, Moving U.S. Forces: Options for Strategic Mobility (Washington, DC: Government Printing Office [GPO], 1997), 1.
 - 11. Graham, Sustaining the Civil Reserve Air Fleet Program, 3.
- 12. William R. Tefteller, "Strategic Airlift Support for U.S. Forces Deployment to Operation Desert Shield" (Washington, DC: Industrial College of the Armed Forces [ICAF], 1991), Abstract.
- 13. Maj David D. Banholzer, USAF, "The Civil Reserve Air Fleet: A Vulnerable National Asset" (Newport, RI: Nava War College, 2006), 3.
- 14. Marty Kauchak, "Filling the Gaps," *Military Logistics Forum* 2, no. 1 (February 2007): 2, http://www.military-logistics-forum.com/article.cfm?Doc ID=2066.
- 15. House Armed Services Committee (HASC), Air Force and Army Airlift and Aerial Re-Fueling Fixed-Wing Aircraft Programs, 2007, 7.
 - 16. Ibid.
 - 17. John A. Tirpak, "The Airlift Gap," Air Force Magazine, October 2004, 1.
 - 18. HASC, Air Force and Army Airlift and Aerial Re-Fueling Programs, 8.
- 19. HASC, Seapower Committee, Force Structure Impacts on Fleet and Strategic Lift Operations, 13 October 1999, 6.
- 20. James P. Sturch, "Strategic Airlift: Strengths and Weaknesses" (Carlisle Barracks, PA: Army War College, 1999), 12.
 - 21. AMC, Fact Sheet, 2.
- 22. Government Accountability Office (GAO), Airline Competition: Impact of Changing Foreign Investment and Control Limits on U.S. Airlines (Washington, DC: GAO, 1992), 62.
 - 23. Graham, Sustaining the Civil Reserve Air Fleet Program, 1.
- 24. Christopher Furlan, *Air Cargo Foreign Ownership Restrictions in the United States* (Miami, FL: University of Miami School of Law, 2006), 2.
 - 25. Spehar and Spradling, "White Paper," 4.
 - 26. GAO, Airline Competition, 12.
- 27. GAO, Issues Relating to Foreign Investment and Control of U.S. Airlines (Washington, DC: GAO, 2003).
 - 28. Furlan, Air Cargo Foreign Ownership Restrictions, 16.
- 29. ICAF, 2004 Transportation Industry (Washington, DC: ICAF, National Defense University, 2004), 12.
- 30. Jeff Mason, "EU Backs 'Open Skies' Pact," Reuters, 22 March 2007.
- 31. Diane M. Grassi, "EU Renews Pressure over U.S. Airline Ownership," *Newsback* (5 November 2006): 2, http://www.newsback.com/forums/news-5570.
- 32. ALPA, "Timeline of Opposition to Foreign Control of U.S. Airlines," 1, http://www.alpa.org/desktopmodules/alpa_documents.
- 33. DeFazio, Peter, "Lawmakers Urge Administration to Drop Proposed Foreign Ownership of Port Operations & U.S. Airlines," press release, 3 March 2006.
 - 34. ALPA, "Timeline of Opposition," 2.
 - 35. Ibid.
 - 36. Ibid., 3.
 - 37. Furlan, Air Cargo Foreign Ownership Restrictions, 17.

- 38. GAO, Airline Competition, 50.
- 39. Spehar and Spradling, "White Paper," 7.
- 40. Boaz Moselle et al., *The Economic Impact of an EU-US Open Aviation Area* (Washington, DC: Brattle Group, December 2002), 7–15.
 - 41. Ibid.
 - 42. GAO, Airline Competition, 52.
 - 43. Banholzer, "Civil Reserve Air Fleet," 6.
 - 44. Moselle et al., Economic Impact, 7-11.
 - 45. Ibid., 7-9.
 - 46. Priddy, History of the Civil Reserve Air Fleet, 221.
 - 47. Ibid., 234.
 - 48. Ibid., 238.
 - 49. Spehar and Spradling, "White Paper," 2-3.
 - 50. GAO, Airline Competition, 62-63.
 - 51. Ibid., 65.
 - 52. Spehar and Spradling, "White Paper," 3.
- 53. Dorothy Robyn, James Reitzes, and Boaz Moselle, *Beyond Open Skies: The Economic Impact of a US-EU Open Aviation Area* (Washington, DC: Brattle Group, 2002), 70, http://transatlantic.sais-jhu.edu/open_skies.pdf.
- 54. L. Nicholas Lacey, Robert Agnew, and Larry Knickerbocker, *Alternatives to Sustain the Civil Reserve Air Fleet* (Alexandria, VA: Institute for Defense Analyses, 2003), A-18.
 - 55. Moselle et al., Economic Impact, 7-11.
 - 56. GAO, Airline Competition, 57-58.
 - 57. ICAF, 2004 Transportation Industry, 14.
- 58. HASC, Subcommittee on Aviation, Current Situation and Future Outlook of U.S. Commercial Airline Industry, 1st Session, 28 September 2005, 1.
 - 59. Graham, Sustaining the Civil Reserve Air Fleet Program, B-32.
 - 60. GAO, Airline Competition, 65.
 - 61. Ibid., 59.
- 62. Daniel V. Coulter, "The Voluntary Intermodal Sealift Agreement: Strategic Transportation for National Defense," *Transportation Journal*, 22 September 2000, 1, http://www.allbusiness.com/operations/shipping/716306-1.html.
 - 63. Moselle et al., Economic Impact, 7-14.
- 64. James K. Matthews, So Many, So Much, So Far, So Fast, 4th ed. (Washington, DC: GPO, 1996), 136.
 - 65. Moselle et al., Economic Impact, 7-13.
- 66. "Air France, Delta Fly High under Open Skies," Salt Lake Tribune, 20 October 2007, 1, http://sltrib.com/ci_7235900.
 - 67. Bolkcom, Strategic Airlift Modernization, crs-3.
 - 68. Ibid., crs-4.
 - 69. Ibid., crs-5.
 - 70. Ibid.
 - 71. Ibid., crs-6.
 - 72. HASC, Hearing on Air Force Strategic Initiatives, 24 Oct 2007, 1.
- 73. GAO, Issues Relating to Foreign Investment and Control of U.S. Airlines (Washington, DC: GAO, 2003), 6.

Appendix

CRAF Monthly Allocations - May 2007

INTERNATIONAL LONG-RANGE PASSENGER (ILP)	(3)	NGER	(ILP)	r-11-0								RNATIC	NAL S	HORT-	SSENGE	R (ISP)							_
AMTICOA DAL HAL NAONWA OAE RYN UAL USA WOA	DAL HAI	HA	X	ONWA	OAE	RYN U.	AL USA	WOA	TOTAL	ISP Segment		AAL ASA AMT	AMIT	BSK	CCPC	CCP COA DAL GWY JBU	AL GW	Y JBU	RYN	SCX SWG	IMS D		UAL TOTAL
			Ш	1			6		43	A-319						+	_	10		+	+	+	0 10
			+	70	0	+	+	-	07	R-727-200/B	+	-	1		00	+	+	17			H	-	00
			-	3		+	-		3	B-737 Series	-	52	12	9		Н	H			4			74
\vdash			H	91		9	30		46	B-757-200			91			7	73				+	+	68
10 48			· ·		,	2 8			272	MD-80 Senes	24.4	000	36	,	0	0	7.3 0	31	0	4	0	13	270
7 29 7	-	-	+ -		7	2	23		09	2		-	-	-						4	1	-	
21	21					-			21					INTERNATIONAL SHORT-RANGE CARGO (ISC)	L SHORT-	-RANGE	ECARG	O (ISC)					
00	00					8	52		101					ISC Segment	ABX [ABX DHL EIA LYC NAC	A LYC	NAC	XNA	TOTAL			
4			Н						4					A-300-B4F		6				6			
			-	-					9					B-727-100F		+	+	-		0			
14 62 58 7 10			1	49	=	2 18	189 10	7	069					B-727-200F	-	+	+			-			
NTERNATIONAL LONG-RANGE CARGO (II.C.)	CHO	- 5												B767-200	-	+	H			-			
ABX APW ATN CKS DAL DHL EIA FDX GCO GTI MUANWA PAC SOO	CKS		DAL DE	IL EIA	FDX	9 000	TI MU	ANNA	PAC SC	OC UPS	WOA	A TOTAL	LVI	DC-9-33F						0			
3						-	-					3		L-100-30			-			-			
3						-	-					7		TOTA	TOTAL 2 9		0 1	-	0	13			
15			90	00			-					24											
					61							61		NATIONAL- DOMESTIC (DOM)	MESTIC (1	(MOC							
2						7					2	=		DOM Segment	AWEF	FT ME	EP SW	AWE FFT MEP SWA TRS TOTAL	OTAL				
9	9			5						2		13		A-319-100		3	-		3				
01	10			00			14	14		9 3		58		A-320-200	7				7				
		-					_				+	-		B-737-300		+	23	-	24				
	4	_					=		9		+	17		B-757-200		-	+						
	1	+	+	-		+	+				+	= 0	-	MLP-80 Series	TOTAL 8 1	-	2 33	-	1.4				
	1	+		-		+	+				+	0	_			4	4						
	Ļ	+	+		811	4	-			0	5	1	_	NATIONAL ALASKA (AAC)	SKAIAA	0							
81 8	+	+	0	8 13	137	+	26 2	14	9	9 14	7	-		AAC Segment	LYCN	LYC NAC TOTAL	MATAL			AEROME	AEROMEDICAL (AERO)	ERO)	
	4	1	4	4		-	-	-					1	DC-6 Series		2 2	2	AERO Segment	egment	AAL DAL	AL UAL	\vdash	USA TOTAL
														L-100-30	2	2	2	B-767-200ER	00ER			6	0
														TOTAL	1. 2	2 4	4	B-767-300ER	00ER	2	29 12		6
																			TOTAL	0	29 12	6	6
									4														
AAL - AMERICAN AIRLINES	NY.		ERICAN	AIRLIN	SS	00	COA - CONTINENTAL	NTINEN	L	JBU- JET BLUE	JE JE				SCX - S	SUN CO	SUNTRY	SCX - SUN COUNTRY AIRLINES	S		- 57	SUMMARY	X
101			***			0	NAT OF TA AIR DIES	TA ATD!	PATEG	TWO TWINDS AIR CARGO	ON AID	ODGV.			000	SOO SOUTHERN AIR	PPN AF	0			Past		Current
ABA - ABA AIR	ABA -		AIR	9		0 0	DAL - DELIA AIRLIN	THUNG!	CINES NO.	MED MINNEST AIR CAND	DOT AID	MEG			CWA	SWA SOUTHWEST	TATEL				Mo		Mo
AMI- ALA AIRLINE	VIV -		OW ATD	3		5 5	CIA ENEBCEEN	PCDEEN	2	MILL MITDRAY ATD	AV AID	2			S.W.	SINWC	MULIA	SWI. STNWORLD INTERNATIONAL	ONAL		April	Chang	Change May
AFW - ARROWAIR	7		TOW WILL	out to the		3 5	CIA CENERAL EXPRISE	CD 11 CA	connec	NAC NOBTHERN AIR CARCO	MEDN AD	CABC			LIAL	TAL INTER AIR INES	AIDIN	SER			069 d II	H	069
ATM AID TO ANGRODE INTA	1014		TOANCE	CONTRA	F	23	T EBO	NTHEP	EET EPONTIEP AIR INES		HAMEBI	CAN AL	PI INFO		. Sdil	IPS - UNITED PARCE	PARC	E				-	300
AND AMERICA MEET AND INCO		. 5	The state of	DOT AN	OI WIE		0.00	division and	CCO CEMENTARE CARGO		TAWEST				LICA	SA AIRWAYS	PWAYS				ISP 270		270
DOV MIAMI AID INTE	2 2	- 4	MIAID	NTI A	MUNES		GTI - ATI AS AIR	AS AID	CARCO	OAE-OWNI AIR INTERNATIONAL	AIR INTER	OHAN	VAL		WOA.	WOA - WORLD	D					-	13
CCB CHAMBION AIB	1	. 12	NOIDWA	AID		0.0	VV. LISA	1 3000 A	GWV - USA 3000 AIRI INES	PAC - POLAR AIR CARGO	2 AIR CA	CO			XNA.	KNA - EXPRESS NET	SS.NET			D	DOM 37		37
CKS - KALITTA AIR	×	12	LITTA AL	IR		HA	VL - HAY	WAHAN	HAL - HAWAIIAN AIRLINES		INTNLA	IRLINES								<	AAC 4		4
																				AE	AERO 50		90

S. DOT, Office of the Secretary of Transportation

Reproduced from DOT, Transportation Emergency Management, 1.

Bibliography

- "Air France, Delta Fly High under Open Skies." Salt Lake Tribune, 20 October 2007. http://sltrib.com/ci_723 5900.
- Air Line Pilots Association. "Timeline of Opposition to Foreign Control of U.S. Airlines." http://www.alpa.org/desktopmodules/alpa_documents.
- Air Mobility Command (AMC). U.S. Air Force Fact Sheet: Civil Reserve Air Fleet. http://www.amc.af.mil/library/fact sheets.
- Banholzer, David D. "The Civil Reserve Air Fleet: A Vulnerable National Asset." Newport, RI: Naval War College, 2006.
- Bolkcom, Christopher, ed. *Civil Reserve Air Fleet*. Congressional Research Service (CRS) Report to Congress. Washington, DC: CRS, 2006.
- ——. Strategic Airlift Modernization: Background, Issues and Options. CRS Report to Congress. Washington, DC: CRS, 2005.
- Congressional Budget Office. *Moving U.S. Forces: Options* for Strategic Mobility. Washington, DC: Government Printing Office (GPO), 1997.
- Coulter, Daniel V. "The Voluntary Intermodal Sealift Agreement: Strategic Transportation for National Defense." Transportation Journal, 22 September 2000. http://www.allbusiness.com/operations/shipping/716306-1.html.
- DeFazio, Peter. "Lawmakers Urge Administration to Drop Proposed Foreign Ownership of Port Operations & U.S. Airlines." Press release, 3 March 2006. http://www .defazio.house.gov/index.php?option=com_content&t ask=view&id=43&Itemid=65.
- Department of Transportation. Transportation Emergency Management. http://www.dot.gov/ost/oet/craf/index.html.
- Furlan, Christopher. *Air Cargo Foreign Ownership Restrictions in the United States.* Miami, FL: University of Miami School of Law, 2006.
- Government Accountability Office (GAO). Airline Competition: Impact of Changing Foreign Investment and Control Limits on U.S. Airlines. Washington, DC: GAO, 1992.

- ——. Issues Relating to Foreign Investment and Control of U.S. Airlines. Washington, DC: GAO, 2003.
- Graham, David. Sustaining the Civil Reserve Air Fleet Program. Alexandria, VA: Institute for Defense Analyses, 2003.
- Grassi, Diane M. "EU Renews Pressure over U.S. Airline Ownership." *Newsback*, 5 November 2006. http://www.newsback.com/forums/news-5570.
- House Armed Services Committee. Air Force and Army Airlift and Aerial Re-Fueling Fixed-Wing Aircraft Programs, 2007.
- ———. Hearing on Air Force Strategic Initiatives, 24 October 2007.
- ——, Seapower Committee. Force Structure Impacts on Fleet and Strategic Lift Operations, 13 October 1999.
- ——, Subcommittee on Aviation. *Current Situation and Future Outlook of U.S. Commercial Airline Industry*, 1st Session, 28 September 2005.
- Industrial College of the Armed Forces (ICAF). 2004 Transportation Industry. Washington, DC: ICAF, National Defense University, 2004.
- Kauchak, Marty. "Filling the Gaps." *Military Logistics Forum* 2, no. 1 (February 2007). http://www.military-logistics-forum.com/article.cfm?DocID=2066.
- Lacey, L. Nicholas, Robert Agnew, and Larry Knickerbocker. Alternatives to Sustain the Civil Reserve Air Fleet. Alexandria, VA: Institute for Defense Analyses. 2003.
- Mason, Jeff. "EU Backs 'Open Skies' Pact." Reuters, 22 March 2007. http://uk.reuters.com/article/topNews/ idUKL2227299520070322?feedType=RSS.
- Matthews, James K. So Many, So Much, So Far, So Fast. 4th ed. Washington, DC: GPO, 1996.
- Meyers, Richard B. *The National Military Strategy of the United States of America*. Washington, DC: Department of Defense (DOD), Office of the Chairman of the Joint Chiefs of Staff, 2004.
- Moselle, Boaz, James Reitzes, Dorothy Robyn, and John Horn. *The Economic Impact of an EU-US Open Aviation Area*. Washington, DC: Brattle Group, December 2002.
- Priddy, Ronald N. A History of the Civil Reserve Air Fleet in Operations Desert Shield, Desert Storm, and Desert

- Sortie. Washington, DC: DOD Policy Board on Federal Aviation, Volpe National Transportation Systems Center, 1994.
- Robyn, Dorothy, James Reitzes, and Boaz Moselle. *Beyond Open Skies: The Economic Impact of a US-EU Open Aviation Area.* Washington, DC: Brattle Group, 2002. http://transatlantic.sais-jhu.edu/open_skies.pdf.
- Spehar, Michael, and Kevin Spradling. "White Paper on Increased Foreign Ownership of U.S. Airlines." Scott AFB, IL: AMC, 2007.
- Sturch, James P. Strategic Airlift: Strengths and Weaknesses. Carlisle Barracks, PA: Army War College, 1999.
- Tefteller, William R. "Strategic Airlift Support for U.S. Forces Deployment to Operation Desert Shield." Washington, DC: ICAF, 1991.
- Tirpak, John A. "The Airlift Gap." Air Force Magazine, October 2004.
- Westenhoff, Charles M. Military Airpower: A Revised Digest of Airpower Opinions and Thoughts. Maxwell AFB, AL: Air University Press, 2007.



AURESS http://aupress.maxwell.af.mil